GROWING TOGETHER

THE AGRICULTURE AND ENVIRONMENT CONNECTION

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Nutrient Management Means Economic and Environmental Returns

Raspberry industry taking the lead

While environmental and economic objectives are often thought to be incompatible, a unique initiative aimed at optimizing nutrient levels on raspberry fields in Abbotsford is showing promise both to industry and to government.

The Raspberry Nutrient Management Initiative is a partnership between the B.C. Raspberry Council, Environment Canada's Georgia Basin Ecosystem Initiative and the B.C. Ministry of Agriculture, Food and Fisheries. The objective is simple: to optimize the amount of nutrients raspberry growers use on their fields, not only to minimize the effect on the environment, but also to maximize their returns.

B.C.'s raspberry industry is a major contributor to our provincial economy with average annual farm gate sales of nearly $20 million. The industry is centred in the Abbotsford area, where approximately 500 raspberry growers farm over 4,500 acres of productive land/farm soil. Those same soils conducive also raise concerns over the potential for nitrates from fertilizer and manure used in farming to find their way into the local groundwater.

Raspberry producers are voluntarily participating in a program of annual post-harvest field tests. Soil is sampled after harvest and the nitrate level is measured. For growers with high nitrate levels, they have an opportunity to reduce the amount of fertilizer used in the following year, thereby enhancing their returns.

"If a crop is grown properly, there shouldn't be a residual nutrient problem," comments Maria Jeffries, a raspberry grower who is leading the program for the B.C. Raspberry Development Council. "Many of our growers have benefitted from the research and information provided."

"The survey program, which we hope will be ongoing, is a tool for growers to get feedback on what they're doing and therefore fine-tune their nitrogen program," says Mark Sweeney, B.C. MAFF's Berry Industry Specialist. "The idea is to reach the optimal level that will benefit the crop and not leave an excess in the soil that can find its way into the groundwater."

That's an idea that we can all support!

For more information on the Raspberry Nutrient Management Initiative, please contact: Mark Sweeney, Berry Industry Specialist, B.C. MAFF; tel: (604) 556-3056, e-mail: Mark.Sweeney@gems6.gov.bc.ca

The objective of the Raspberry Nutrient Management Program is to optimize the amount of nitrates growers use on their fields.

Pesticide Program Sparks Big Returns

B.C. pesticide return program a success

The British Columbia Pesticide Return Program recently held a number of pesticide collections on Vancouver Island, like the one featured above in Sidney.

A cooperative effort between industry, government and British Columbia's farmers has resulted in the safe destruction of a substantial amount of unwanted and obsolete pesticides.

The British Columbia Pesticide Return Program provides B.C. farmers and ranchers an opportunity to freely dispose of unwanted and obsolete pesticides, thereby reducing the potential for contaminating our local environment.

Over the past year, there has been an overwhelming response by local farmers to pesticide collections co-sponsored by the program in the Fraser Valley and Vancouver Island regions. Approximately 60 cubic yards of solid pesticides and 280 two-hundred litre drums of liquid pesticide containers were returned through the program.

"The number of farmers who participated and the amount of pesticide they brought in to dispose for recycled/non-expensive use," says Madeline Wiering, Pesticide Specialist, B.C. Ministry of Agriculture, Food and Fisheries.

Plans are currently underway for a collection in the Okanagan and in West Kootenay in the spring of 2001. It is anticipated there will be a number of collection sites throughout the Okanagan and Creston in order for orchardists and farmers to dispose of their

See PESTICIDE RETURN pg. 4

Industry Work on Green Fund Continues

Program will help producers meet environmental objectives

The B.C. Agriculture Council has been working with producers to gather support for a proposed new federal/provincial program designed to help resolve key agriculture/environment issues.

A draft report on the Agriculture Environment Green Fund has been written by the B.C. Agriculture Council proposing ways that funding could help B.C.'s farmers and ranchers to achieve greater economic health while complying with environmental regulations and standards. Upon completion of the report, the B.C. Agriculture Council will require the approval of both Agriculture and Agri-Food Canada and the B.C. Ministry of Agriculture, Food and Fisheries to implement specific funds.

While details of the fund are still under discussion, the Council is proposing that most funds be directed to assist producers in areas such as riparian management and wildlife damage prevention and compensation. Other priority areas include public awareness and education, the development of area-wide agriculture/environmental plans, and research directed at environmentally sustainable agriculture production.

Steve Thomson, Executive Director of the B.C. Agriculture Council has been working with federal and provincial officials over the past year to have the fund established.

"Producers are facing increasing pressure from environmental and wildlife interests. Establishment of this fund will provide an opportunity for producers to respond to those pressures in an affordable manner, while recognizing the ongoing commitment for responsible stewardship and the economic realities of farming today."

A major focus of the Agriculture Environment Green Fund will be wildlife damage prevention and compensation.

A management committee, composed of industry representatives has been established to oversee the program. This committee, under the leadership of George Hamilton, has recently appointed Brian Bacht, formerly a director with B.C. MAFF, as the coordinator of the Green Fund for the B.C. Agriculture Council.

Bacht is excited about the potential of the Green Fund. "This will be a chance to develop ongoing programs to address the impacts of wildlife on agriculture and a great opportunity to help farmers effectively contribute to environmental goals."

> *"Producers are facing increasing pressure from environmental and wildlife interests. Establishment of this fund will provide an opportunity for producers to respond to those pressures in an affordable manner, while recognizing the ongoing commitment for responsible stewardship and the economic realities of farming today."*
> *– Steve Thomson, B.C. Agriculture Council*

In addition to the Agriculture Council, Agriculture and Agri-Food Canada and the B.C. Ministry of Agriculture, Food and Fisheries, many other groups will provide ongoing support to the work of the Green Fund. Key among these groups is the Partnership Committee on Agriculture and the Environment, an industry/government working group established in 1995 to provide greater consultation and cooperation between agriculture producers and environmental agencies.

The B.C. Agriculture Council's draft work plan about the proposed Green Plan is available on its web site www.bcac.bc.ca

For further information on the Agriculture Environment Greens Plan, please contact:
Brian Bacht, coordinator, tel: (250) 763-9790;
e-mail: bebacht@silk.net

Agriculture and Ranching Inspection Pilot Project

Seeking prevention through education and compliance

Heightened public awareness of the dangers of contaminated groundwater from agricultural and ranching activities has placed added pressure on farmers, ranchers, and pollution prevention regulators to deal with the potential impact on aquatic habitat.

Although non-point source pollution from agriculture is a significant environmental concern, most stakeholders would agree that shutting down farm and ranch operations and handing out fines is not likely to serve as the most effective long-term answer to the problem.

In seeking a fresh solution that would engage the full participation and cooperation of the agricultural community, the Partnership Committee on Agriculture and the Environment last spring collaborated on the development of the Agriculture and Ranching Inspection Pilot Project. The basis was on stakeholder consultation sessions and inspections of ranches and feedlots in the Cariboo around Prince George and Smithers.

Working in consultation with stakeholders such as the B.C. Cattlemen's Association, the Riparian Task Group, Fisheries and Oceans Canada and the Ministry of Environment, Lands and Parks, Environment Canada developed a pilot project to address ranching practices causing potential significant risks to fish bearing waters in the area. Management practices concerning pesticide storage, manure management, and cattle herd overwintering near fish bearing streams and ditches were among the items addressed. Substances such as ammonia, nitrates and phosphorus finding their way into streams, lakes and rivers can result from poor management practices in these areas.

The basic thrust of the pilot project is prevention through education and compliance. The rationale behind the project is that by encouraging the use of better agricultural management practices that conform with the provisions of the federal Fisheries Act, cattle ranchers are free to make an income from ranching without causing undue and illegal destruction of natural habitat. One of the goals of the pilot project is to implement changes without creating unnecessary bureaucracy and duplicating enforcement efforts between provincial and federal regulatory authorities.

Brock Bailey, a Supervisor of Inspections & Investigations for the Environmental Protection Branch with Environment Canada in Prince George, says eight ranch inspections were completed last year in the Horsefly and Chilcotin areas. But the emphasis of the pilot project is not on site inspections of individual ranches. The project is aimed at addressing agricultural pollution within a broader scope, specifically through education and compliance. It will also regularly assess cattle operations and their impact on the specific watercourses in the region.

"The protocol is that we will do an inspection if we are instructed a problem either by a complaint or by request from Fisheries and Oceans Canada. We then will inspect for compliance with Sec. 36(3) of the Fisheries Act and for problems associated with Sec. 35(1) and report those to Fisheries and Oceans Canada."

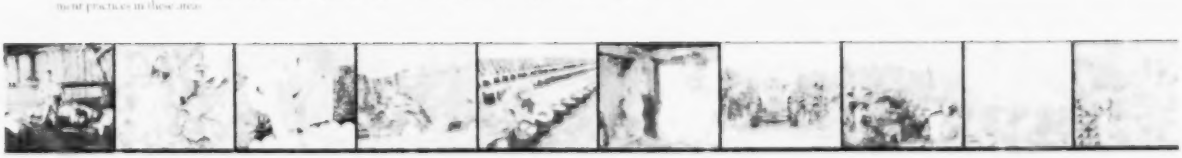
The project staff met with the Chilako Watershed Council near Prince George to discuss what had taken place on various ranch and farm properties with respect to habitat improvements.

Last December they met again with the Chilako Watershed Council and the Prince George Cattlemen's Association. At both of these meetings an update was provided as to the progress of the pilot program, and some of the long and short term plans. Fisheries and Oceans various ranchers from the Prince George area along with the Agriculture Extension representatives from Quesnel and MAFF also attended.

In all cases where changes to current agriculture practices were proposed, ranchers agreed to minimize the impact on the riverbed and stream by moving their cattle away from sensitive habitat areas.

"The council was formed in an effort to improve the relationship between local ranchers and the various government agencies," says Laura Ogston who runs 1,000 head of cattle on her ranch north of Prince George. "It's been helpful for our community to begin to take ownership of ownership issues from a 'bottom-up' perspective."

For more information on the Agriculture and Ranching Inspection Pilot Project, please contact:
Brock Bailey, Supervisor of Inspections & Investigations, Environment Canada; tel: (250) 561-6902;
e-mail: brock.bailey@ec.gc.ca



Langley Environmental Partners: Making a Difference

Model for community environmental partnership

What began as a small, self-focusing project for ranchers in the Township of Langley has now grown to become a model for local, community-based environmental initiatives that focus on solutions and promote greater cooperation with local farmers.

The Langley Environmental Partners Society, through its Fisheries/Agricultural Stewardship Program, has been conducting livestock exclusion fencing and riparian restoration projects in cooperation with local farmers since 1993.

"Experience has taught us that a cooperative, pro-active approach is necessary to implement projects that suit the landowner, while still providing a significant environmental benefit," says Executive Director Marina Stojkovic. "We are careful to ensure that we are providing help, not problems, to local farmers."

To date, the society has completed a total of 16 large-scale projects. Custom site plans are developed in conjunction with the farmer, offering flexibility and options, while project financing is done through cost-sharing arrangements. Approximately half of the funds are secured from local financial institutions, businesses and government programs.

Each project often involves LEPS staff and volunteers helping to construct fencing along streamside areas. Typically, each project involves 600 – 1500 metres of fencing as well as construction of a bridge crossing that allows for the easy movement of livestock and machinery. While LEPS may provide much of the materials required, they often look to the landowner to assist them with the necessary equipment and machinery.

Before and After: An agricultural stewardship project recently completed on West Creek in Langley Township by the Langley Environmental Partners Society.

"We find that farmers like to help in the environment," says Stojkovic. "They are aware of the benefits not only to the environment, but to the operation of the farm, as land that we can quickly return to the best use to pursue our business."

One farmer who has benefited from the program is Fred Hopton of Aldergrove. Hopton has a 75-acre farm along the Salmon River. Two years ago LEPS approached Hopton for permission to plant natural vegetation along the river and to build a 1.5 km fence, at their cost, to prevent domestic animals from entering the water.

"They did a very good job," says Hopton. "They even re-decked an old bridge across the river that makes it easier to move equipment and livestock."

Discussions are underway between LEPS and Hopton regarding the possible construction of a fish ladder that would restore another 1.5 kilometres of tributary for fish habitat.

Stojkovic and the farming community are now beginning to see the results of their work.

"It doesn't take long for a stream to rehabilitate itself. All you have to do is look at a few of our earlier projects to see that vegetation is growing alongside the stream, the water is flowing clear, and the gravel is emerging. There has been a huge difference."

For more information on the Langley Environmental Partners Society, please contact: Marina Stojkovic, Executive Director, LEPS; tel: (604) 533-6054; e-mail: mstojkovic@tbd.bc.ca

Nutrient Management: Working Towards New Solutions

Working group promotes range of options

Over the past 18 months a committee of producers and government representatives has been meeting to tackle the difficult issue of nutrient management in the Fraser Valley.

The Nutrient Management Action Plan Working Group was established to help find solutions to problem areas in the Fraser Valley where nutrient production currently exceeds the capacity of the land or crops. The Working Group was also tasked to make recommendations aimed at changing producers' management practices in order to reduce agricultural sources of pollution and through better planning, avoid future imbalances of nutrients on agricultural lands.

The process to develop the Nutrient Management Action Plan is being facilitated by the Fraser Basin Council.

"Our job has been to help farmers and government agencies work together to find solutions to the nutrient management concerns that exist in the Valley," says Malcolm Smith of the Fraser Basin Council. "Through their recent discussions the working group has identified a number of nutrient management options. Broadly categorized into seven action areas: education and awareness; infrastructure; research; long-term planning; monitoring; on-farm plans; and legislative/regulatory options."

> *"The plan should result in more attention, more research and more funding being brought to this important issue."*
> *– Kevin Chipperfield, Sustainable Poultry Farming Group*

"The Working Group, through the development of the Plan has found that our capacity to manage nutrients simply hasn't kept up with tremendous changes in the agriculture sector," says Smith. "Building that capacity is going to require action in all of the areas identified in the Management Plan such as education, research and infrastructure development, etc. The task of implementing the plan is a significant challenge, but there's a willingness among the Working Group members to start taking some of the high priority actions that both farmers and government see as key to achieving improved nutrient management."

Better nutrient management practices can help ensure that farmers are in compliance with environmental regulations and continue to be good stewards of the land. In some cases, changes in nutrient management practices can also improve a farmer's bottom line.

As a representative of the Sustainable Poultry Farming Group on the committee, Kevin Chipperfield has helped shape the draft action plan that will soon be released.

"The plan should result in more attention, more research and more funding being brought to this important issue."

For more information on the Nutrient Management Action Plan, please contact: Marian Robinson, Regional Coordinator, Fraser River Basin Council; tel: (604) 826-1661; e-mail: mrobinson@fraserbasin.bc.ca

Riparian Self-Audit Handbook

Environmental action aimed at helping farmers help themselves

The Fish Protection Act requires that riparian protection measures be undertaken on watercourses where they may impact fish. While agricultural areas are currently exempt from Section 12 of the Act, there is agreement between the agriculture industry and the various provincial government agencies that the industry will begin to prepare guidelines and implement a voluntary process to improve the conditions of existing riparian areas on agricultural lands.

Although agriculture is exempt from the riparian protection measures of the provincial Fish Protection Act, it is important to note the federal *Fisheries Act* still applies on agricultural land. The *Fisheries Act* includes habitat protection provisions, which protect water quality and fish habitat. Existing riparian vegetation is an important component of fish habitat and is therefore, protected under *Fisheries Act*.

The Farm-Industry Committee on Agriculture and the Environment has recently authorized the B.C. Agriculture Council, with the assistance of the Riparian Working Group, to develop a Riparian Self-Audit Handbook for voluntary use by producers to improve the condition of existing riparian areas.

"The main purpose of the Riparian Self-Audit is to allow producers to assess the condition of riparian areas on their property," says Steve Thomsen of the B.C. Agriculture Council. "It identifies potential problems and provides some of the answers that will allow them to take action."

"The benefit of this type of voluntary compliance is important to producers. With good management practices and a greater understanding of riparian function, it will allow producers to continue productive use of their land, while contributing to fisheries and wildlife values."

The Riparian Self-Audit is designed for producers and requires no special expertise or training. Individual producers should know that the self-audit is private and confidential, and that they will remain the only person who will have access to the results.

For more information on the Riparian Self-Audit Handbook, please contact: Steve Thomsen, Executive Director, BCAC; tel: (250) 763-9790; e-mail: sthomsen@bcagcouncil.com

Why Should You Conduct a Riparian Self Audit?

Riparian areas perform many functions that benefit a farm or ranch.

Healthy riparian areas:

- reduce erosion and the loss of valuable soils by slowing runoff from storms and spring thaw;
- decrease the amount of sediments entering streams and ditches, reducing the need for costly maintenance;
- provide nature's most important natural filtration system, helping clean water for domestic use, livestock watering, and agricultural crops;
- act like a giant sponge to reduce floods recharge water tables and ease drought;
- minimize the ability of invasive plant species to crowd out valuable forage species, and
- shade out aquatic weeds that hinder the proper drainage of agricultural land.

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Pesticide Return Program a Success

unwanted pesticides. Area farmers should watch for details in their local newspaper and upcoming product newsletters.

The Pesticide Return Program is jointly funded by the BC Investment Agriculture Foundation, the Canadian chemical industry, Crop Protection Institute and the Environment Canada Greening Farm Economy Initiative. Raincoast helps to oversee the program in cooperation with Agriculture and Agri-Food Canada and the BC Agriculture Council.

Core Division, Vice President of the Crop Protection Institute of Canada and the minister responsible for Environment Canada, "We are pleased to support the project as it will promote responsible stewardship and education while addressing the environmental health and safety in B.C. farms. "This program has been implemented successfully in other regions of Canada because it's good for farmers, good for the environment and good for Canada. We appreciate the support of the Foundation and Environment Canada in funding this program initiative."

> *"The number of farmers who participated, and the amount of pesticide they brought in for disposal far exceeded our expectations."* – Madeline Waring, Pesticide Specialist, B.C. Ministries of Agriculture, Food and Fisheries

The BC Investment Agriculture Foundation provided funding for this project since we feel that it will be a great benefit to the environment of healthier farm regions," said Glen Kennedy, Chair of the Foundation.

For more information on the Pesticide Return Program, please contact:
Madeline Waring, Pesticide Specialist, B.C. MAFF; tel (604) 556-3027; email: madeline.waring@gems5.gov.bc.ca

Making Stewardship Work on the Ranch

Network of "stewards" helping to protect fish habitat

In British Columbia's Southern Interest, agriculture can have an impact on the area's valuable fish populations. Protecting these fish stocks calls for ranchers and farmers to be active in stewardship – not only of the land, but also of the rivers and streams that flow through the land.

Working with ranchers to safeguard fish habitat is Lee Hesketh. He is a new stewardship coordinator, hired through the federal government's Habitat Conservation and Stewardship Program. Since the spring of 1999, the program has deployed a network of more than 100 "stewards" such as Hesketh in communities across B.C. and the Yukon to protect fish populations through stronger watershed stewardship.

In the past, ranchers and the government agencies mandated to protect fish and fish habitat, have often operated from differing perspectives. But Hesketh is ideally suited to bridge the gap. A rancher himself, he has also worked for many years with Fisheries and Oceans Canada designing and creating habitat restoration projects on local streams.

"I see my main role as a go-between," Hesketh adds. "I'm working with the industry to help them understand government regulations because information is the basis for understanding. I believe that if more ranchers understood how a watershed functions, they would make the right decisions. Giving people knowledge will make stewardship work."

Hesketh's position is funded by HCSP but he works for the B.C. Cattlemen's Association through a partnership arrangement. David Borth, the association's general manager, agrees that strengthening the relationship between ranchers and the government is the key to success.

"Ranchers want to do the right thing for stewardship, but they are cautious," says Borth. "That's where Lee comes in. He helps to resolve their concerns and shows DFO how best to reach and work with ranchers. I've seen a change in the program from enforcement to working with landowners in an incentive-based approach."

There are many issues that need concerted, cooperative action. The Southern Interior includes the Thompson, mid-Fraser and Okanagan watersheds – productive rivers, streams and lakes that provide habitat for important runs of coho, chinook and sockeye salmon. However, many water systems suffer from a loss of streamside, or riparian, vegetation. This poses problems for both fish and landowners: shifting of the stream channel, loss of land through erosion, sedimentation, poor water quality and more extreme water temperatures.

> *"I believe that if more ranchers understood how a watershed functions, they would make the right decisions. Giving people knowledge will make stewardship work."*
> *–Lee Hesketh, Habitat Conservation and Stewardship Program Steward*

Another concern is water runoff. During rain and spring thaw, runoff from cattle fields and farmlands can carry potentially toxic substances such as fertilizers, pesticides and manure to nearby waterways. Yet another issue is how water flows for fish in streams when demands for irrigation water is compounded by hot, dry summer months. Solving these problems needs cooperative action to find new and effective farming and ranching practices.

Over the past few months, Hesketh has been working with ranchers and farmers to improve habitat on their land by planting streamside vegetation, erecting fences to protect streams from grazing cattle and stabilizing eroding riverbanks. Keeping in mind the interests of ranchers, he works hard to ensure his advice about how to restore and protect fish habitat is common sense and affordable.

The Habitat Conservation and Stewardship Program, which funds Hesketh's position, is part of the $100 million Resource Rebuilding initiative. Resource Rebuilding is a major component of the five-year $400 million Pacific Fisheries Adjustment and Restructuring Program, launched in 1998. Other positions created under the program include habitat auditors, habitat stewards and habitat fishery officers. These stewards work with community and watershed groups, industry, stakeholders, First Nations and government agencies to improve watershed stewardship.

For more information on the Habitat Conservation and Stewardship Program, please contact: Joanne Dax; tel: (604) 666-0614; or visit the HCSP web site at: http://www-heb.pac.dfo-mpo.gc.ca/english/programs/hcspdefault.htm

The First Steps Toward Recovery at Black Creek

Sensitive stream pilot project underway

"Government has made it a priority to protect, conserve and restore at-risk fish populations and their habitats. Designating sensitive streams under the Fish Protection Act is an important step in the process for achieving these goals."

Those were the words of then B.C. Environment, Lands and Parks Minister Joan Sawicki, as she unveiled the provincial government's policy on sensitive streams early last year. She also announced that Campbell River's Black Creek had also been selected as one of two pilot projects to serve as the first sensitive stream recovery plans in the province.

Now, one year later, an active recovery plan team of industry, government and community leaders has been established. Deborah Epps is a Fish Protection Biologist with MELP and is the Chair of the Black Creek Recovery Table.

"Black Creek was selected as a pilot project with the hope of developing a model for stream recovery in a rural/agricultural setting," Epps says. "We have two goals: trying to restore fish and fish habitat, including water flow in the watershed, along with pursuing solutions to help rectify other resource use issues such as agriculture, rural development and forestry."

The Black Creek Recovery Project involves the collection of hydrology and temperature data. Pictured above is a gauge on Black Creek during high-flow season.

The recovery plan team established a Terms of Reference in August, 2000 for their work, a document that establishes goals and objectives, sets tasks and begins to define the content of a recovery plan. The team has also been busy collecting existing and new information on the creek, including hydrology and temperature data, as well as existing data. Black Creek is a coho indicator stream for Fisheries and Oceans Canada and that information on escapement and habitat utilization is readily available.

The recovery plan team has signified that public participation is a key component to their success. The final action plan, scheduled for release this April, has benefited from door-to-door surveys of adjacent landowners and three public information meetings that have been held in the local community.

"It's all part of building a partnership with all stakeholders," says Epps. "We need to work within the watershed to meet agriculture requirements as well as enhance and protect fish and fish habitat."

For more information on the Black Creek Recovery Plan, please contact: Deborah Epps, MELP; tel (250) 751-3146; e-mail: deb.epps@gems9.gov.bc.ca

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